

[54] NERVE REGENERATION CONDUIT

[75] Inventor: Joseph Nichols, Princeton, N.J.

[73] Assignee: American Biomaterials Corporation, Plainsboro, N.J.

[21] Appl. No.: 915,512

[22] Filed: Oct. 6, 1986

[51] Int. Cl.⁵ A61F 2/06; A61B 17/04

[52] U.S. Cl. 606/152; 623/1; 623/13

[58] Field of Search 128/334 R, 334 C, 335, 128/335.5, DIG. 8, 92 YQ, 92 YR; 435/1, 240, 284; 530/356; 514/8, 21; 106/161; 623/1, 13; 606/152

[56] References Cited

U.S. PATENT DOCUMENTS

3,551,560	12/1970	Thiele	128/334 R
3,833,002	9/1974	Palma	128/334 R
4,325,867	4/1982	Eberle et al.	530/356
4,376,071	3/1983	Jennings et al.	435/240
4,448,718	5/1984	Yannas et al.	530/356
4,451,397	5/1984	Huc et al.	128/DIG. 8
4,544,552	10/1985	Fraefel et al.	435/240
4,621,631	11/1986	Paques et al.	128/334 R
4,642,120	2/1987	Nevo et al.	128/92 YR
4,642,293	2/1987	Chung	435/172.2
4,662,884	5/1987	Stensaas	128/335.5

OTHER PUBLICATIONS

Summary of Heyl (European) Patent; doc. #0,52,288; 623/13; May, 1982.

Rosen et al., "Suture and Sutureless Methods of Repairing Experimental Nerve Injuries", Chap. 25 of *Nerve Repair & Regeneration*, Jewett et al. eds., 1979.

Abstract of Madison et al., "Increased Rate of Peripheral Nerve Regeneration Using Bioabsorbable Nerve Guides and a Laminin Containing Gel", *J. of Experimental Neurology*, Jun., 1985, vol. 88(3), pp. 767-772.

Madison et al., "Nontoxic Nerve Guide Tubes Support Neovascular Growth in Transected Rat Optic Nerve", *Experimental Neurology* 86, pp. 448-461, (1984).

In re Boe and Duke, 184 VSPQ 38, (CCPA 1974).

Primary Examiner—Randall L. Green

Assistant Examiner—Paul Prebilic

[57] ABSTRACT

The present invention is directed to a hollow conduit comprised of a matrix of Type I collagen and laminin-containing material which conduit is used to promote nerve regeneration across a gap of a severed nerve. Methods of making the nerve regeneration conduit are also disclosed.

10 Claims, No Drawings